

## **PD5091 PRODUCT LIFECYCLE MANAGEMENT**

### DETAILED SYLLABUS

#### **OBJECTIVE**

1. To understand history, concepts and terminology of PLM
2. To understand functions and features of PLM/PDM
3. To understand different modules offered in commercial PLM/PDM tools
4. To understand PLM/PDM implementation approaches
5. To understand integration of PLM/PDM with other applications

#### **UNIT I HISTORY, CONCEPTS AND TERMINOLOGY OF PLM**

Introduction to PLM, Need for PLM, opportunities of PLM, Different views of PLM - Engineering Data Management (EDM), Product Data Management (PDM), Collaborative Product Definition Management (cPDM), Collaborative Product Commerce (CPC), Product Lifecycle Management (PLM). PLM/PDM Infrastructure – Network and Communications, Data Management, Heterogeneous data sources and applications.

#### **UNIT II PLM/PDM FUNCTIONS AND FEATURES**

User Functions – Data Vault and Document Management, Workflow and Process Management, Product Structure Management, Product Classification and Programme Management. Utility Functions – Communication and Notification, data transport, data translation, image services, system administration and application integration.

#### **UNIT III DETAILS OF MODULES IN A PDM/PLM SOFTWARE**

Case studies based on top few commercial PLM/PDM tools

#### **UNIT IV ROLE OF PLM IN INDUSTRIES**

Case studies on PLM selection and implementation (like auto, aero, electronic) - other possible sectors, PLM visioning, PLM strategy, PLM feasibility study, change management for PLM, financial justification of PLM, barriers to PLM implementation, ten step approach to PLM, benefits of PLM for– business, organisation, users, product or service, process performance.

#### **UNIT V BASICS ON CUSTOMISATION/INTEGRATION OF PDM/PLM SOFTWARE**

PLM Customization, use of EAI technology (Middleware), Integration with legacy data base, CAD, SLM and ERP

## REFERENCES

1. Antti Saaksvuori and Anselmi Immonen, "Product Lifecycle Management", Springer Publisher, 2008 (3rd Edition).
2. International Journal of Product Lifecycle Management, Inderscience Publishers
3. Ivica Crnkovic, Ulf Asklund and Annita Persson Dahlqvist, "Implementing and Integrating Product Data Management and Software Configuration Management", Artech House Publishers, 2003.
4. John Stark, "Global Product: Strategy, Product Lifecycle Management and the Billion Customer Question", Springer Publisher, 2007.
5. John Stark, "Product Lifecycle Management: 21st Century Paradigm for Product Realisation", Springer Publisher, 2011 (2nd Edition).
6. Michael Grieves, "Product Life Cycle Management", Tata McGraw Hill, 2006.